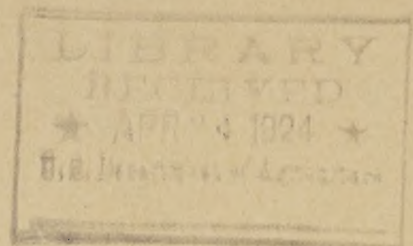


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CHEMICAL WORK

IN

U. S. DEPARTMENT OF AGRICULTURE





OFFICE OF THE SECRETARY OF AGRICULTURE. In Mall near 13th and B  
Streets, S. W.

Secretary of Agriculture:	Hon. Henry C. Wallace.
Assistant Secretary:	Howard M. Gore.
Director of Scientific Work:	Dr. E. D. Ball.
Director of Regulatory Work:	Walter G. Campbell.
Director of Extension Work:	C. W. Warburton.
Solicitor:	R. W. Williams, Office, 1316 B Street, S. W.

MAJOR SCIENTIFIC UNITS.

BUREAU OF AGRICULTURAL ECONOMICS. Main Office, Bieber Bldg.,  
1358 B St., S. W.

Chief:	Dr. Henry C. Taylor.
Assistant Chiefs:	Lloyd S. Tenny; W. A. Schoenfeld.

BUREAU OF ANIMAL INDUSTRY. East Wing. In Mall near 13th and B  
Streets, S. W.

Chief:	Dr. John R. Mohler.
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BUREAU OF BIOLOGICAL SURVEY. Bieber Building, 1358 B St., S. W.

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Assistant Chief:	W. C. Henderson.

BUREAU OF CHEMISTRY. 216 - 13th Street, S. W.

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Assistant Chief:	Dr. W. W. Skinner.

BUREAU OF ENTOMOLOGY. Adjacent to East Wing. In Mall near 13th  
and B Streets, S. W.

Chief:	Dr. L. O. Howard.
Associate Chiefs:	Dr. C. L. Marlatt; Dr. A. L. Quaintance.

BUREAU OF HOME ECONOMICS. 220 - 14th Street, S. W.

Chief:	Dr. Louise Stanley.
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BUREAU OF PLANT INDUSTRY. West Wing. In Mall near 14th and B  
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Chief:	Dr. William A. Taylor.
Associate Chief:	Dr. Karl F. Kellerman.



BUREAU OF PUBLIC ROADS. Willard Bldg., 515 - 14th Street, N. W.

Chief: Thomas H. MacDonald.

BUREAU OF SOILS. East Wing. In Mall near 13th and B Streets, S. W.

Chief: Dr. Milton Whitney.

WEATHER BUREAU. Corner 24th and M Streets, N. W.

Chief: Charles F. Marvin.

Assistant Chief: Dr. Charles C. Clark.

FEDERAL HORTICULTURAL BOARD. Adjacent East Wing. In Mall near 13th and B Streets, S. W.

Chairman: Dr. C. L. Marlatt.

FIXED NITROGEN RESEARCH LABORATORY. Ohio Bldg., American University, Massachusetts and Nebraska Avenues, N. W.

Director: Dr. F. G. Cottrell.

FOREST SERVICE. Atlantic Building, 928-930 - F Street, N. W.

Chief: W. B. Greeley.

Associate Forester: E. A. Sherman.

INSECTICIDE AND FUNGICIDE BOARD. Olive Bldg., 220 - 13th Street, S. W.

Chairman: Dr. J. K. Haywood.



BUREAU OF AGRICULTURAL ECONOMICS.

GRAIN DIVISION. H. J. Pesley, in charge. Room 401, Bieber Building,  
1358 B Street, S. W.

- (1) CHEMICAL LABORATORY. Dr. D. A. Coleman, in charge. 2nd Floor,  
221 Linworth Place, S.W.  
Assistants: H. C. Fellows, A. Christie, Jr.,  
H. B. Dixon.

Chemical Tests on Flaxseed, Wheat and Wheat Flour.  
Color Tests for Oats.  
Humidity Equilibria of Cereal Grains.  
Qualitative Tests for Gluten Quality.

- (2) MILLING AND BAKING LABORATORY. J. H. Schollenberger, in  
charge, 1369 C Street, S. W.

Baking Tests (W. K. Marshall).  
Milling Tests (J. F. Hayes).

- (3) COLD STORAGE INVESTIGATIONS. J. F. Barghausen, in charge.  
4th Floor, 221 Linworth Place, S. W.



BUREAU OF ANIMAL INDUSTRY.

- (1) ANIMAL HUSBANDRY DIVISION. Dr. L. J. Cole, in charge. Room 4225, Building F, 7th and B Sts., N. W.

Respiration Calorimeter in Relation to Incubation of Eggs  
(H. G. Barret, East Wing, Room 39).  
Nutrition, Study of Soft Pork (H. E. Ellis, Beltsville, Md.).

- (2) BIOCHEMIC DIVISION. Dr. M. Dorset, in charge. East Wing, Room 350.

Animal Dips (R. M. Chapin, Room 345).  
Animal Disinfectants (R. M. Chapin, Room 345).  
Animal Fats, Rancidity (W. C. Powick, Room 341).  
Animal Insecticides and Fungicides (Dr. J. A. Emery, Room 349).  
Animal Serums and Viruses (R. R. Henley, Room 314).  
Meats and Meat Products, Chemistry of (R. Hoaglund, Room 342).  
Preparation and Chemical Study of Tuberculin and Malein (Dr. J. A. Emery, Room 349).  
Vitamines in Meats (R. Hoaglund, Room 342).  
Vitamine Requirements of Poultry and Swine (R. Hoaglund, Room 342).

- (3) DAIRY DIVISION. Dr. L. A. Rogers, in charge Research Laboratories. East Wing, Room 401.

Milk (Dr. P. Rupp, Room 416).  
Milk Powder (Dr. G. E. Holm, Room 443).  
Milk, Evaporated and Condensed (A. Leighton and E. Deysher, Rooms 450 and 412, respectively).  
Milk Secretion (Dr. E. B. Meigs).  
Nutrition of Dairy Cows (Dr. E. B. Meigs, Beltsville, Md.).  
Butter Fat, Rancidity (Dr. G. E. Holm, Room 443).  
Lactose, Crystallization (A. Leighton, Room 450).  
Lactose, Fermentation (E. O. Whittier, Room 448).

- (4) MEAT INSPECTION LABORATORIES. R. H. Kerr, in charge. East Wing, Room 244.

Inspection of Meat, Meat Food Products, and Materials Used in Their Preparation.

- (5) PATHOLOGICAL DIVISION. Dr. J. S. Buckley, in charge. East Wing, Room 302.

Poisonous Principles of Plants Poisonous to Domestic Animals (Dr. J. S. Couch, Room 307).



BUREAU OF CHEMISTRY.

- (1) ANALYTICAL REAGENT INVESTIGATIONS LABORATORY. Dr. G. C. Spencer,  
in charge. Rooms 312 and 313.

Chemical Apparatus, Examination of Quality (Dr. G. C.  
Spencer and J. K. Morton).

Chemical Reagents, Examination of Quality (Dr. G. C.  
Spencer, J. K. Morton, and R. M. Hann).

Nitrogen, Estimation by Kjeldahl Method (L. J. Jenkins,  
Room 614).

- (2) ANIMAL PHYSIOLOGICAL CHEMICAL LABORATORY. Dr. L. H. Almy, acting  
in charge Room 202.

Food Spoilage, Study of Methods of Detecting.

- (3) CARBOHYDRATE LABORATORY. H. S. Paine, in charge. Office,  
Rooms 309-B and 310-A. Laboratories, Rooms  
301-305.

Sirups (C. F. Walton).

Cane Sugar (C. F. Walton, M. A. McCalip, Dr. V. Birckner).

Beet Sugar (F. W. Reynolds, M. S. Badollet, J. C. Keane).

Rare Sugars and Their Derivatives (Dr. D. H. Brauns).

Analytical Methods (R. T. Balch).

Colloid Studies (L. E. Dawson).

Confectionery (J. Hamilton).

- (4) COLD STORAGE FACILITIES AND MECHANICAL SHOPS. S. A. Postle,  
Room 414.

- (5) COLOR LABORATORY. Dr. Joseph A. Ambler, in charge. Arlington  
Farm.

Dye Intermediates, Properties (Dr. J. A. Ambler and  
assistants).

Dyes, Optical Properties (Dr. W. C. Holmes and Dr. H. Wales).

Dyes, Synthesis (Dr. J. A. Ambler and assistants).

Food Colors, Certification (Dr. W. F. Clark, Dr. H. Wales,  
and O. L. Evenson).

Stains, Biological, Standardization (Dr. J. A. Ambler and  
Dr. W. C. Holmes).

Other Assistants: C. E. Senseman, J. E. T. Berliner, Max  
Phillips, D. F. J. Lynch, O. A. Nelson,  
and J. T. Scanlan.



- (6) CROP CHEMISTRY LABORATORY. Dr. E. T. Wherry, in charge.  
Rooms 611 and 612.

Crops, Composition as Affected by Environmental Conditions  
(Dr. E. T. Wherry, Dr. J. Davidson, and Ruth Buchanan).  
Crystallographic Identifications (Dr. E. T. Wherry).  
H-ion, Estimation in Soils (Dr. E. T. Wherry).  
Plant Growth, Effect of Soil Reactions (Dr. E. T. Wherry).

- (7) DEVELOPMENT WORK, OFFICE OF. David J. Price, Engineer in charge.

Dust Explosions and Fires in Industrial Plants:

- (a) Office of Engineering Investigations and Exhibits,  
Room 120-H, Building F, 7th and B Streets (H. R.  
Brown, J. O. Reed, W. A. Noel, A. C. Gerlach, and  
R. M. Baker).  
(b) Chemical Investigations Laboratory, Bureau of Chemis-  
try, Room 506.  
Explosibility of Dust, Determination (P. W. Edwards  
and H. W. Frevert).

- (8) DRUG CONTROL LABORATORY. Dr. G. W. Hoover, in charge. Offices,  
Rooms 507 and 508.

Drug Analysis, Methods (A. G. Murray, Dr. S. Palkin, and  
H. R. Watkins, Room 509).  
Drugs, Crude (J. F. Clevenger and Ruth G. Capen, Room 510).  
Drug Materials (A. G. Murray, Room 509).  
Pharmaceutical Preparations (H. R. Watkins and Dr. S.  
Palkin, Room 509).

- (9) EXHIBITS, OFFICE OF. H. C. Hunter. Room 309-A.

General Exhibit (H. C. Hunter, Room 315-A).

- (10) FOOD CONTROL LABORATORY. Dr. F. C. Blanck, in charge. Dr.  
B. G. Hartmann, assistant. Room 306.

Cacao Products (H. A. Lepper, Room 311).  
Cereal Products (R. Hertwig, L. H. Bailey, and A. Boynton,  
Rooms 212-14).  
Dairy Products (J. T. Keister, Room 307).  
Fruits and Vegetables, Canned (P. L. Gowen, Room 308).  
Jams, Jellies, Preserves, and Fruit Butters (C. P. Lathrop  
and J. I. Palmore, Room 505).  
Mustard (R. Hertwig, Room 213).  
Salad Dressing (H. A. Lepper, Room 311).  
Sea Food Products (J. B. Reed, Room 311).  
Vinegar (H. A. Lepper, Room 311).



- (11) FRUIT AND VEGETABLE UTILIZATION LABORATORY. H. C. Gore, in charge. Office, Room 209-B. Laboratory, Room 203.

Maltose, Economic Production (H. C. Gore).

- (12) LEATHER AND PAPER LABORATORY. Dr. F. P. Veitch, in charge. Office, Room 106-B. Laboratories, Rooms 101, 106-110, 112, 113.

Fiber Board (T. D. Jarrell, Room 110).

Leather and Tanning Material (R. W. Frey, Rooms 112 and 113).

Paper (T. D. Jarrell, Room 110).

Turpentine and Rosin (V. E. Grotlisch, Room 101).

Water-, Mildew-, and Fireproofing of Fabrics (H. P. Holman, Room 107).

Other Assistants: I. D. Clarke, L. R. Leinbach, W. D. Edington, W. C. Smith, G. P. Shingler.

- (13) LIBRARY. Louise Duvall, Librarian. Room 210. Assistant Librarian, M. G. Beckwith; Translator, Mrs. A. E. Warthen.

8,500 Books and Periodicals on Chemistry, Pharmacy, Foods, and Medicine; Dictionary Catalogue of 36,000 Cards.

- (14) MICROBIOLOGICAL LABORATORY. Dr. Charles Thom, in charge. Room 610.

Botulism (Dr. C. Thom, Room 610).

Molds and Fungus Studies (Dr. C. Thom, Room 610).

Salmon (Dr. A. C. Hunter, Room 603).

Sauerkraut, Pickles, and Vinegar Fermentation (Dr. Edwin LeFevre, Room 609).

Shellfish, Bacteriology (Dr. A. C. Hunter, Room 603).

Soy Sauce, Fermentation Processes Concerned in Manufacture (Dr. M. B. Church, Room 609).

Other Assistants: L. H. James, H. C. Colson, B. A. Linden.

- (15) MICROCHEMICAL LABORATORY. B. J. Howard, in charge. Room 503. Assistants: Dr. E. A. Reed, G. L. Keenan, Dr. V. A. Pease, C. H. Stephenson.

Microscopy of Foods.

Microscopy of Drugs.

Microscopical Examination of Paper and Fabrics.

(16) MISCELLANEOUS DIVISION. Dr. J. K. Haywood, in charge. Olive Building, 220 - 13th St., S. W.

(a) Cattle Food and Grain Investigation. G. L. Bidwell, in charge. 2nd Floor, Olive Building.

Assistants: M. R. Coe, W. F. Stirling, R. S. McKinney.

Stock Feeds.

By-products as Cattle Foods.

(b) Insecticide and Fungicide Laboratory. Dr. C. C. McDonnell, in charge. 3rd. Floor, Olive Building, and Room 102, Bureau of Chemistry.

Active Principle of Organic Insecticides (L. N. Markowitz, Olive Building, and C. R. Smith and Dr. F. B. LaForge, Room 102).

Arsenicals (C. M. Smith, Olive Building).

Colloidal Chemistry of Insecticides (C. M. Smith and Dr. E. L. Griffin, Olive Building).

Insecticides, Fungicides, Disinfectants, Fumigants, and Sprays (Olive Building).

Other Assistants: W. D. Lynch, J. J. T. Graham, W. J. Morgan, C. V. Bowen, J. C. Bubb, E. L. Hart, R. Jenkins, A. C. Nothstine, A. Shaver, J. W. Barnes, W. A. Gersdorff, R. F. Russ, H. D. Young, G. W. Kirby.

(17) OIL, FAT AND WAX LABORATORY. Dr. G. S. Jamieson, in charge. Rooms 313 and 314.

Fats, Study of Composition (Dr. G. S. Jamieson and W. F. Baughman).

Oils, Study of Composition (Dr. G. S. Jamieson and W. F. Baughman).

Refining of Oil, Losses in (Dr. G. S. Jamieson).

(18) PHARMACOLOGICAL LABORATORY. J. C. Munch, acting in charge. Room 606.

Alcohols and Alkyl Esters, Pharmacology.

Bio-assay of Drugs.

Dyes, Pharmacology.

Rat Poisons.

(19) PHYTOCHEMICAL LABORATORY. Dr. F. B. Power, in charge. Rooms 511 and 512-A.

Odorous Constituents of Plants (Dr. F. B. Power and V. K. Chesnut, Room 511).



- (20) PROTEIN INVESTIGATION LABORATORY. Dr. D. Breese Jones, in charge.  
Assistants: J. C. Murphy, C. E. F. Gersdorff, H. C. Waterman.  
Office, Room 206-A. Animal Room in Rear of Bureau of  
Chemistry Building. Laboratories, Rooms 201 and 205.

Proteins, Composition.  
Proteins, Nutritive Value.

- (21) SPECIAL COLLABORATIVE INVESTIGATIONS. Dr. L. F. Kebler, in  
charge. Office, Room 103. Laboratories, Rooms  
104 and 105.

Chemical Collaboration with Certain Governmental Agencies  
(Dr. W. O. Emery, E. K. Nelson, Dr. C. D. Wright, and  
W. F. Kunke).  
Fruit Acids (E. K. Nelson, Room 501).  
Organic Synthetic Drug Products (Dr. W. O. Emery, Room 104).

- (22) TEA INSPECTION OFFICE. G. F. Mitchell, in charge. Room 315-B.

Cassina, Utilization of, in Beverages.  
Tea, Inspection.

- (23) WATER AND BEVERAGE LABORATORY. J. W. Sale, in charge. Room 207-B.

Beverages (J. W. Sale and J. B. Wilson, Rooms 207-A and B).  
Flavors (J. W. Sale and J. B. Wilson, Rooms 207-A and B).  
Radio-activity of Water and Drugs (C. H. Badger, Room 208).  
Salt (C. H. Badger, Room 208).  
Water (C. H. Badger and Anna E. Mix, Room 208).

BUREAU OF HOME ECONOMICS.

EXHIBITS -

220 - 14th St., S. W., 2nd. Floor.

Food and Dietetics (Caroline Hunt).  
Diabetic Foods (May Brookshire).

East Wing.

Jellies (Room 50).

Shortening Power, Measurement (Dr. M. C. Denton, Room 50).

Raw Starches, Digestibility (Dr. C. F. Langworthy, Alice  
T. Merrill, Room 40).

Fats and Oils, Digestibility (Dr. C.F. Langworthy, Alice T.  
Merrill, Room 40).

Respiration Calorimeter, Studies of Household Labor In-  
volving Use (C. F. Langworthy, Room 48).



BUREAU OF PLANT INDUSTRY.

- (1) FRUIT DISEASE INVESTIGATIONS. Dr. M. E. Waite, in charge. West Wing, Room 319.

Apple Scald, Biochemical Studies Relating to (Dr. Charles Brooks, Dr. J. S. Cooley, Room 316).  
Fungicide Investigations (Dr. M. B. Waite, Room 319).

- (2) SOIL BACTERIOLOGY INVESTIGATIONS. Dr. Felix Lohnis, in charge. West Wing, Room 243.

Nitrogen, Estimation of (N. R. Smith, K. S. Markley, Room 248).

- (3) SOIL FERTILITY INVESTIGATIONS. Dr. Oswald Schreiner, in charge. East Wing, Room 126).

Organic Soil Constituents, Chemical Nature and Isolation (Dr. Oswald Schreiner, Dr. E. C. Shorey, Room 127).  
Crop and Soil Analysis (B. E. Brown, W. E. Leighty, Room 132).  
Humus Formation (Dr. Oswald Schreiner, P. R. Dawson, Room 129).  
Organic Fertilizers (Dr. Oswald Schreiner, R. B. Deemer, Room 130).  
Soil Acidity (L. A. Hurst, E. F. Snyder, Room 135).  
Plant Pigments, Effect of Fertilizers on (Dr. F. M. Schertz, Room 133).  
Fertilizer Investigations (Dr. J. J. Skinner, B. E. Brown, F. R. Reid, Arlington Farm Greenhouse).

- (4) CROP ACCLIMATIZATION. Dr. O. F. Cook, in charge. West Wing, Room 131.

Rubber Plants, Investigation (L. G. Polhamus, Room 133).

- (5) DRUG, POISONOUS AND OIL PLANT INVESTIGATIONS. Dr. W. W. Stockberger, in charge. West Wing, Room 348.

Drug Plants, Chemical Composition (A. F. Sievers, Room 418).  
Poisonous Plants, Isolation and Identification of Poisonous Principles (O. F. Black, J. W. Kelley, Room 441).  
Fixed Vegetable Oils, Isolation and Study of (A. F. Sievers, Frank Rabak, Room 418).  
Volatile Oils, Production, Composition, and Uses (G. A. Russell, Room 346).  
Waste Products Utilization (Frank Rabak, Room 418).

(6) PHYSIOLOGICAL AND FERMENTATION INVESTIGATIONS. Dr. K. F. Kellerman, in charge. West Wing, Room 207.

Carbohydrate Metabolism in Plants (Dr. H. H. Hasselbring, Room 10).

Absorption of Mineral Constituents by Plants (Dr. H. H. Hasselbring, Room 10).

Plant Pigments, Isolation and Study of (especially flavones and anthocyanins) (Dr. C. E. Sando, P. H. Williams, Room 12).

Surface Coverings, Wax-like, of Fruits and Other Plant Parts (Dr. C. E. Sando, P. H. Williams, Room 12).

Nitrogen Metabolism of Cereals (Dr. S. L. Jodidi and J. G. Wangler, Room 310).

(7) CEREAL INVESTIGATIONS. Dr. C. R. Ball, in charge. 1306 B St., S. W.

Cereal Plants, Moisture, Ash and Nitrogen Content of Various Parts (Dr. H. V. Harlan, M. N. Pope, Room 304).

Cell Sap Studies (Dr. A. M. Hurd-Karrer, Room 439, West Wing).

(8) TOBACCO AND PLANT NUTRITION INVESTIGATIONS. Dr. W. W. Garner, in charge. West Wing, Room 426.

Biochemical Studies of the Tobacco Plant (Dr. C. W. Bacon, Room 432).

Effect of Length of Day on Plant Composition (Dr. C. W. Bacon, Room 432).

(9) SEED TESTING LABORATORY. Dr. Edgar Brown, in charge. West Wing, Room 126.

Chemistry of Germination (Dr. E. H. Toole, Room 17).

(10) SUGAR PLANT INVESTIGATIONS. Dr. Elmer Brandes, in charge. West Wing, Room 309.

Chemistry of Sugar Plants (S. F. Sherwood, Room 435).

(11) HORTICULTURAL AND POMOLOGICAL INVESTIGATIONS. Dr. L. C. Corbett, in charge. 220-14th St., S. W.

Gaseous Exchange of Stored Fruits and Vegetables (R. C. Wright, Dr. J. R. Magness, Arlington Farm, Cold Storage Plant).

Chemistry of Fruit Juices (Dr. J. S. Caldwell, C. W. Culpepper, Arlington Farm, Dehydration Laboratory).



(11) HORTICULTURAL AND POMOLOGICAL INVESTIGATIONS (continued).

Chemistry of Dehydrated Products (Dr. J. S. Caldwell,  
C. W. Culpepper, Arlington Farm, Dehydration  
Laboratory).

Composition of Fruits and Vegetables (Dr. J. S. Caldwell,  
C. W. Culpepper, Arlington Farm, Dehydration  
Laboratory).

Cold Storage and Transportation Investigations (Dr. L. A.  
Hawkins, R. C. Wright, Dr. J. R. Magness, and  
others, Room 413, 220 - 14th St., S. W.).

BUREAU OF PUBLIC ROADS.

DIVISION OF TESTS. A. T. Goldbeck, in charge. Room 812,  
Willard Building, 513 - 14th Street, N. W.

(1) TESTING OF ROAD MATERIALS.

Oils, Tars, Asphalts, Bituminous Mixtures (H. M. Milburn,  
B. A. Anderton, Room 806, Willard Building).  
Rocks, Gravel, Sand-clays, Cements, Cement Concrete and  
Concrete Aggregates (F. H. Jackson, Room 105).  
Microscopic and Petrographic Examinations (Dr. E. C. E.  
Lord, Room 813, Willard Building).  
Metals and Paints (L. G. Carmick, Room 811, Willard  
Building).

(2) EXPERIMENTAL ROADWAYS.

Stability of Bituminous Concrete (27 sections, each repre-  
senting a different composition) (B. A. Anderton,  
F. H. Tucker, Arlington).  
Wear of Cement Concrete (62 sections, each representing a  
different composition) (F. H. Jackson, Arlington).  
Concrete, Constructed on Subgrades of Different Supporting  
Values (C. A. Hogentogler, Arlington).

(3) TESTS OF PAVEMENT SLABS UNDER IMPACT. L. W. Teller, Arlington.

(4) LABORATORY TESTS OF SUBGRADE SOILS. J. R. Boyd, Arlington.

(5) FIELD TESTS OF ROAD DRAINAGE AND SUBGRADES. I. B. Mullis,  
Arlington.



BUREAU OF SOILS.

(1) CHEMICAL INVESTIGATIONS. P. L. Gile, in charge. East Wing,  
Room 139.

Physico-chemical Studies of the Colloidal Matter Present  
in Soils (Dr. M. S. Anderson, Room 143, and Dr.  
S. E. Mattson, Room 141).  
Chemical Composition of the Colloidal Matter in Different  
Soil Types (W. O. Robinson, Room 144).  
Classification of Peat Soils on the Basis of Their Chemical  
Composition (R. S. Holmes, Room 144).  
Colloidal Matter Present in the Different Soil Horizons  
(I. A. Denison, Arlington Laboratories).  
Complete Analysis of Soils in Connection with Their Classi-  
fication on the Basis of the Relative Compositions  
of the Soil Horizon (G. J. Hough and Glen Edgington,  
Room 141).  
Soil Petrography: Mineralogical Composition of Different  
Soil Horizons (W. H. Fry, Room 250).  
The Influence of Soil Colloid on the Efficiencies of Phos-  
phate Fertilizers (J. G. Smith, Room 143).

(2) FERTILIZER RESOURCES OF THE UNITED STATES. East Wing, Room 117.

Concentrated Fertilizers (Dr. W. H. Ross, Dr. A. R. Merz,  
A. L. Mehring, and R. M. Jones, Arlington Laboratories).  
Inorganic Ammoniates (Dr. R. O. E. Davis, East Wing, Room 250).  
Organic Ammoniates (G. P. Walton and R. M. Gardiner, Arling-  
ton Laboratories).  
Lime, Sulphur and Home Mixing (Dr. C. C. Fletcher, Office,  
East Wing, Room 248. Laboratory at Arlington).  
Phosphate Investigations (K. D. Jacob, Office, East Wing,  
Room 150).  
Potash Investigations; Potash from American Raw Materials --  
Greensand, Cement Dust, Kelp, Desert Brines, etc.  
(Office, East Wing, Room 249. Laboratory at Arlington.  
Dr. J. W. Turrentine, E. J. Fox, and C. W. Whittaker).  
Analytical Laboratory (F. O. Lundstrom, Arlington Laboratories).

(3) SOIL PHYSICS. Doctor R. O. E. Davis, in charge. East Wing, Room  
250.

Physical Studies of Soil Colloids (H. E. Middleton and J.  
R. Adams, East Wing, Room 148).  
Mechanical Analysis of Soils (J. B. Spencer, A. A. White,  
Victor J. Jacquot, East Wing, Room 123).

FIXED NITROGEN RESEARCH LABORATORY.

SYNTHETIC AMMONIA DIVISION. Dr. A. T. Larson, in charge. Room 212.

Hydrogen Production and Purification (Dr. R. M. Evans,  
C. A. Black, Wm. L. Newton, Room 211).  
Ammonia Catalysts (Dr. E. D. Grittenden, W. Hawkins, C. N.  
Richardson, A. Hastings, Room 209).  
High Pressure Synthesis (C. H. Young, L. A. Stengel, M. C.  
Molstad, Catalyst Testing Plant).  
Theory of Catalysis and Miscellaneous Problems (R. L. Dodge,  
F. E. Smith, Room 209, and W. E. Kuentzel, Room  
216).  
Analytical (K. S. Love, Room 216).

CHEMISTRY DIVISION. Dr. J. M. Braham, in charge. Room 116.

Cyanamide, Fixation of Nitrogen as (H. J. Krase and J. Y.  
Yee, Room 117).  
Cyanides, Fixation of Nitrogen as (E. W. Guernsey and M. S.  
Sherman, Room 102).  
Nitrides, Fixation of Nitrogen as (H. J. Krase, J. Y. Yee, Dr.  
C. D. Garby, Rooms 117 and 108).  
Bacterial Fixation, Mechanism (Dr. F. E. Allison, Room 107).  
Nitrogen Oxides Recovery and Nitric Acid (Dr. J. A. Almquist  
and V. L. Gaddy, Room 114).  
Nitrogen Conversion Processes (H. C. Hetherington and L. A.  
Pinck, Rooms 113 and 111).  
Atmospheric Nitrogen Products, Utilization and Properties  
(Room 116).  
Analytical Laboratory (Dr. C. D. Garby and M. A. Kelly,  
Rooms 108 and 109).

PHYSICS DIVISION. Dr. S. Karrer, in charge. Room 220.

Dr. C. S. Fazel, Dr. C. H. Kunsman, E. H. Johnston,  
B. V. Cassen, Rooms 218-220.  
Properties of Active Nitrogen.  
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